Test Report

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High Efficiency 3-megapixel High Resolution IP Camera

LILIN IPG1032 Intelligent 3-megapixel IP Camera

ILIN IPG1032 intelligent 3-megapixel IP camera represents an advanced generation of its high resolution IP camera portfolio in image performance and operating interface features.

2048x1536 (3-megapixel) High Resolution and Excellent Color Rendition Capabilities

IPG1032 adopts the 1/2.8-inch Progressive CMOS sensor and large chip compression to provide crystal clear images in both H.264 format of 1920x1080 (1080P) live video transmissions and MJPEG format of 3-megapixel (2048x1536) conditions.

We find that in 1080P (1920x1080), the EIA resolution chart shows clearly vertical lines over 1400 TVLs (shown in picture 1). In addition, when we point IPG1032 toward moving objects in a dynamic scene, it did not cause any serious serrated edges. Even though IPG1032 adopts the CMOS sensor, it still provides



▲ Picture 1. 1032's EIA high resolution resu

excellent image quality of dark environments with the low light noise suppression function.

IPG1032 intelligent IP camera supports four streams and is able to provide 30 fps of live local and remote surveillance quality in H.264. As for projector screens, event alarms and mobile phone remote transmissions, it can offer 5 fps to 30 fps image quality in MJPEG. When initially viewing with the standard 24-color rendition chart, we can see the standard saturation and complete gray scale rendition. When we use the auto aperture lens of F1.2 and make gain adjustments according to the different light intensity, the resulting images have good color rendition with minimized distortion (shown in picture 2). IPG1032 intelligent IP camera delivers reliable image quality and the color suppression features, making it an ideal choice for various indoor and outdoor applications.



▲ Picture 2. provides excellent color rendition and white balance control.

On-demand Video Streaming and Transmission Delay Control

LILIN IPG1032 features H.264 and MJPEG compression formats supporting the streaming control of video packets both in constant bit rate (CBR) and variable bit rate (VBR) based on the network conditions ranging from 1000 kbps to 10 Mbps. IPG1032 also provides options for users to adjust the streaming rates according to the image status and resolutions. The manufacturer suggests installers and users to set a reference value for video packets according to different frame rates and compression conditions, so we use 1080P/30fps and 6 Mbps of bandwidth to evaluate the changes of the video data streaming status from static to dynamic, and the results are about 6.3 to 6.6 Mbps. For high resolution applications, such results are acceptable. That means the transmission in layer2 10/100/1000M Base-T network



▲ Picture 3. provides excellent color rendition and white balance control.

environments is guaranteed without any loss frames.

As for latency, the lag results we get are within 330-360 milliseconds no matter in H.264 or MJPEG compression format, 2048x1536 or 1920x1080 resolution at 30fps. For seamless video streaming, IPG1032 shows reasonable delay of less than 500 milliseconds in different compression formats and resolutions, which not only meets the high resolution requirements but also verifies LILIN IPG1032's excellent performance in controlling and handling the video packets.

Practical Design and Structure

IPG1032 has a full metal enclosure in silver and gray. Its rear side features multiple functional ports including front end SD card storage with easy-to-install plugs. Furthermore, LILIN IPG1032 supplies DC12V and PoE dual power inputs, resolving the on-site power supply issues for installers. Its audio I/O and alarm DI/DO components adopt easy-to-match 3.5 mm jacks and press-type sockets simplifying the connecting procedures of audio signals.

IPG1032 also has a reset button in the panel to enhance the convenience of installing and configuring the camera. IPG1032 includes an auto aperture lens mount to provide better low-light night vision effects with CMOS sensor. Its signal output ports provide not only TCP/IP, but also the BNC plug for local analog signal outputs. This design eliminates installers' needs to perform on-site adjustments and improves the installation efficiency. Its DI/DO external ports have clear indications as well and the



press-type interface.

Meanwhile, the package of IPG1032 includes the user manual, installation and management CD and the brackets to ensure the ease of installation.

Back Light Compensation and Wide Dynamic Features with CMOS

LILIN IPG1032 supports the wide dynamic range (WDR) and back light compensation (BLC) features to enhance good image quality and is able to identify all corners of the backlight scenes in harsh light environments. Such results are able to be reproduced many times during our evaluations. In addition, IPG1032 offers the auto white balance feature to deliver good color rendition according to various light sources and color temperatures (shown in picture 3).

Installation Convenience and Optional Features

Compared with other IP cameras, LILIN IPG1032's Internet Explorer-based monitoring software is simpler and shows more complete surveillance contents.

IPG1032's live display images are embedded in the operating windows, so that when users make adjustments and settings of the camera, they are able to preview the

image at the same time without the need to shift between windows.

Furthermore, IPG1032 does not require any specified software to back up or take screen shots of images. The backed up video clips or images (which will be automatically saved in the default path) can be viewed with common media players or image viewers in the same window or under the same platform, enabling a user-friendly experience. Finally, IPG1032 adds the ONVIF protocol for better integration, which makes IPG1032 an ideal choice to be integrated with other high resolution IP products based on its software development kits or open standard SDK/SDI protocols.

Editor's notes

LILIN IPG1032 intelligent IP camera can satisfy high resolution demands with its high resolution, low-light, high frame rates and good color rendition features. This product is designed for traffic surveillance applications, making it an efficient option for car plate identification and traffic law enforcement assistances. In addition, this camera is suitable for bank and school surveillance as well due to its crystal clear image quality. However, the client software would be more user-friendly if it could preview directly the results of any changes in color, brightness, and contrast settings.

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